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REVIEW OF THE ERCOT SCARCITY
PRICING MECHANISM§
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FILING CLERK**NRG ENERGY, INC. REPLY COMMENTS CONCERNING
THE LOW SYSTEM-WIDE OFFER CAP****I. INTRODUCTION**

NRG Energy, Inc. (NRG) appreciates the opportunity to reply to comments in this project on the Electric Reliability Council of Texas (ERCOT) scarcity pricing mechanism set forth in 16 Texas Administrative Code (TAC) § 25.505(g).

NRG supports the pricing circuit breaker concept embodied by the scarcity pricing mechanism in 16 TAC § 25.505(g), including the peaker net margin (PNM) calculation that lowers the system-wide offer cap (SWCAP) from the high offer cap (HCAP) to the low offer cap (LCAP) once the threshold of three times the cost of new entry of generation plants is reached. The proposed changes in NRG's initial comments ensure the LCAP operates as a true pricing circuit breaker even under high gas prices while ensuring generators are not harmed financially if their operating costs exceed a \$2,000/MWh LCAP.¹ Most of the proposed rule modifications filed by other parties fail to maintain the circuit breaker concept in a high gas price environment, or alternatively would harm generators financially by capping offers below cost in the cases that high gas prices increase fuel costs above the proposed caps. It is important to consider the duration and magnitude of prices required to exceed the PNM threshold, which is a rare event. Even when substantial scarcity hours were observed in 2011 and 2019, the accrual of PNM in each of those years was not even half of the required \$315,000/MW-year² PNM threshold to trigger the LCAP.³ The February 2021 winter weather event greatly exceeded any historical reference for duration of load shed and prices at the \$9,000/MWh value of lost load (VOLL). At \$709,250/MW-year as of

¹ NRG Energy, Inc. Response to Request for Comments on the Low System-Wide Offer Cap at 3 (Mar. 19, 2021) (NRG's Comments).

² ERCOT Protocols Section 4.4.11 System-Wide Offer Caps.

³ See *Reports of the Independent Market Monitor for the ERCOT Region*, The Independent Market Monitor's 2019 State of the Market Report for ERCOT Electricity Markets at 79 (May 2020).

March 21st, the PNM accrual for 2021 has already doubled the threshold.⁴ The financial consequences of these pricing outcomes have been severe. The ERCOT market has experienced a record amount of unpaid invoices (i.e. default amount) estimated at \$2,916,869,044.57⁵ and numerous market participants have exited the market or filed for bankruptcy.

The purpose of a circuit breaker to scarcity pricing is to ensure that once adequate price signals are sent to incentivize investment, pricing returns to lower thresholds. The ERCOT market has for 2021 reached that point. The circuit breaker in ERCOT is framed in terms of the cost of new entry of incremental capacity, and NRG submits that additional intervals of scarcity pricing would not change potential new entrants' fundamental view of the profitability of the ERCOT marketplace. For that reason, it would not be reasonable to prevent the LCAP mechanism to work as intended as a circuit breaker. Meanwhile, to the degree that scarcity pricing also conveys useful real-time signals for existing resources, NRG has proposed narrow modifications to ensure the purpose of making generation available even in high-cost fuel situations is otherwise achieved.

II. RESPONSES TO PROPOSALS CONCERNING QUESTION 2

1. NRG's Proposal Concerning the Adjustment to the LCAP is the Most Consistent with the Intent of the Established Circuit Breaker Concept

NRG's proposed rule modifications ensure the pricing circuit breaker concept embodied by the scarcity pricing mechanism in 16 TAC § 25.505(g) functions as intended.⁶ The high natural gas prices experienced during the February 2021 winter weather event exposed the potential for LCAP to exceed HCAP. Plainly it is contrary to the intent of a circuit breaker for the number designated by rule as "low" to exceed the number designated by the same rule as "high," notwithstanding the complexity in the calculation of LCAP.⁷ Setting offer caps and VOLL at \$2,000/MWh by removing the 50 times fuel index price component while ensuring generators can nevertheless recover costs if they exceed \$2,000/MWh best achieves the objective of the pricing circuit breaker concept. A \$2,000/MWh LCAP equates to a \$200/MMBtu natural gas price for a

⁴ ERCOT's posting of the "Peaker Net Margin" for Mar. 21, 2021 (available at <http://www.ercot.com/mktinfo>).

⁵ ERCOT Market Notice "Payments by Short-Paying Invoice Recipients and Estimated Cumulative Aggregate Short Pay Amount" dated Mar. 17, 2021.

⁶ NRG's Comments at 3.

⁷ 16 TAC § 25.505(g)(6)(A)(ii).

generation resource with a 10 MMBtu/MWh heat rate, which should be a rare occurrence and be sufficient to cover generator costs in most instances. In the rare case it does not, generators should be able to recover their costs including a modest margin.

Many of the other commenters' proposals included a rule change to ensure LCAP does not exceed HCAP.⁸ While ensuring LCAP cannot exceed \$9,000/MWh, these proposals could still result in high offer caps and prices which undermines the objective of a pricing circuit breaker. In addition, if natural gas prices were elevated to the point where fuel costs for generators exceeded \$9,000/MWh, gas-fired generators could be forced to operate at a financial loss or shut down. If the Public Utility Commission ("Commission") supported this type of approach to limit LCAP at HCAP, NRG would encourage the inclusion of a make whole settlement mechanism for generator cost recovery proposed below.

2. Proposals Concerning a Temporary LCAP Would be Difficult to Manage

A few commenters proposed an event-based or temporary LCAP mechanism that would implement the LCAP on a temporary basis after certain criteria was met.⁹ For example, TIEC proposed to implement a \$2,000/MWh LCAP if EEA3 was experienced for 10 hours within a 48-hour period and only if ordered by the Commission.¹⁰ Under these proposals, HCAP would be restored at a later time either based on Commission discretion or some other criteria. While more limited in nature, these temporary LCAP proposals would result in substantial price volatility in the forward bilateral markets and increase the difficulty of hedging in a market that already suffers from poor liquidity, especially during scarcity pricing events. During the week of February 15th, 2021, NRG observed significant price volatility as the PNM threshold was reached and the Commission suspended the application of the LCAP. A temporary or event-based LCAP mechanism would require market participants to estimate the duration of a more fleeting scarcity

⁸ Comments of Texas Coalition for Affordable Power at 2 (Mar. 19, 2021); Comments of Potomac Economics (the Independent Market Monitor) at 2-3 (Mar. 19, 2021); Texas Public Power Association's Initial Comments Regarding the Review of the ERCOT Scarcity Pricing Mechanism at 5 (Mar. 19, 2021); Initial Comments of Texas Electric Cooperatives, Inc. at 4 (Mar. 19, 2021); South Texas Electric Cooperative, Inc.'s Initial Comments to Commission Questions on the Low System-Wide Offer Cap at 3 (Mar. 19, 2021) (STEC's Comments); and Calpine Corporation Initial Comments Regarding the Staff Questions at 3 (Mar. 19, 2021). Comments of Texas Solar Power Association at 2 (Mar. 19, 2021) (TSPA's Comments) also suggested such a cap as one option for consideration.

⁹ Texas Industrial Energy Consumers' Initial Comments on the Low System-Wide Offer Cap at 3-6, 8 (Mar. 19, 2021) (TIEC's Comments); STEC's Comments at 4. TSPA's Comments at 2 also recommended consideration of event-based caps or a seasonal trigger.

¹⁰ TIEC's Comments at 10.

pricing event and the timing of when the HCAP would resume, which could be subjective. These are both difficult to predict and would increase volatility in the bilateral markets which result in increased transaction costs. NRG does not necessarily oppose a more sophisticated scarcity-pricing mechanism, but these questions should be left for a more comprehensive undertaking and not done in a one-off manner for the coming summer season. For those reasons, NRG opposes a temporary or event-based LCAP mechanism.

3. TIEC's Generator Cost Recovery Mechanism Should be Adopted as an Important Revision to the Scarcity Pricing Mechanism

NRG agrees with TIEC's comments regarding the design of a generator cost recovery mechanism.¹¹ To ensure the LCAP acts as a price circuit breaker, both NRG and TIEC propose to set LCAP equal to \$2,000/MWh and include a cost recovery mechanism in the rare case operating costs exceed this amount. While NRG does not support the temporary or event-based LCAP structure as discussed above, TIEC's design of the cost recovery mechanism includes important performance incentives that may be needed if a period of high gas prices occurs. In their comments, TIEC suggests "ERCOT shall implement a process for reimbursing generation owners for any actual marginal costs, plus a reasonable margin to incentivize performance, in excess of LCAP revenues."¹² NRG supports this design and encourages the Commission to adopt this concept as part of a cost recovery mechanism.

III. PROPOSED RULE CHANGES

The following proposed rule changes reflect the proposal by NRG in its initial comments, as modified to incorporate the reimbursement language proposed by TIEC with which NRG agrees.¹³

(g) **Scarcity pricing mechanism (SPM).** ERCOT will administer the SPM. The SPM will operate as follows:

[(1)-(5) No change.]

(6) System-Wide Offer Caps.

(A) The low system-wide offer cap (LCAP) will be set ~~at on a daily basis at the greater of:~~

(i) \$2,000 per MWh and \$2,000 per MW per hour; ~~or~~

(ii) ~~50 times the natural gas price index value determined by ERCOT, expressed in dollars per MWh and dollars per MW per hour.~~

(B) The high system-wide offer cap (HCAP) will be \$9,000 per MWh and \$9,000 per MW per hour.

¹¹ TIEC's Comments at 10.

¹² TIEC's Comments at 10.

¹³ TIEC's Comments at 10, TIEC's proposed subsection (g)(6).

- (C) The system-wide offer cap will be set equal to the HCAP at the beginning of each calendar year and maintained at this level until the peaker net margin during a calendar year exceeds a threshold of three times the cost of new entry of new generation plants.
- (D) If the peaker net margin exceeds the threshold established in subparagraph (C) of this paragraph during a calendar year, the system-wide offer cap will be set to the LCAP for the remainder of that calendar year. In this event, ERCOT will continue to apply the operating reserve demand curve and the reliability deployment price adder for the remainder of that calendar year. Energy prices, exclusive of congestion prices, will not exceed the LCAP plus \$1 for the remainder of that calendar year.
- (E) The value of the lost load will be equal to the value of the system-wide offer cap in effect.
- (7) Reimbursement for Operating Losses During an LCAP Event.** ERCOT shall implement a process for reimbursing generation owners for any actual marginal costs, plus a reasonable margin to incentivize performance, in excess of LCAP revenues. ERCOT shall utilize existing settlement processes to the extent possible to verify the generator's costs and expedite reimbursement. Reimbursement shall include a margin on the generator's actual cost to incentivize performance during an LCAP event.

IV. CONCLUSION

NRG appreciates the Commission's thoughtful consideration of this issue. NRG respectfully recommends that the Commission amend the rule as set forth above to ensure that the scarcity pricing mechanism can remain in place through a wide range of market conditions.

Respectfully submitted,

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